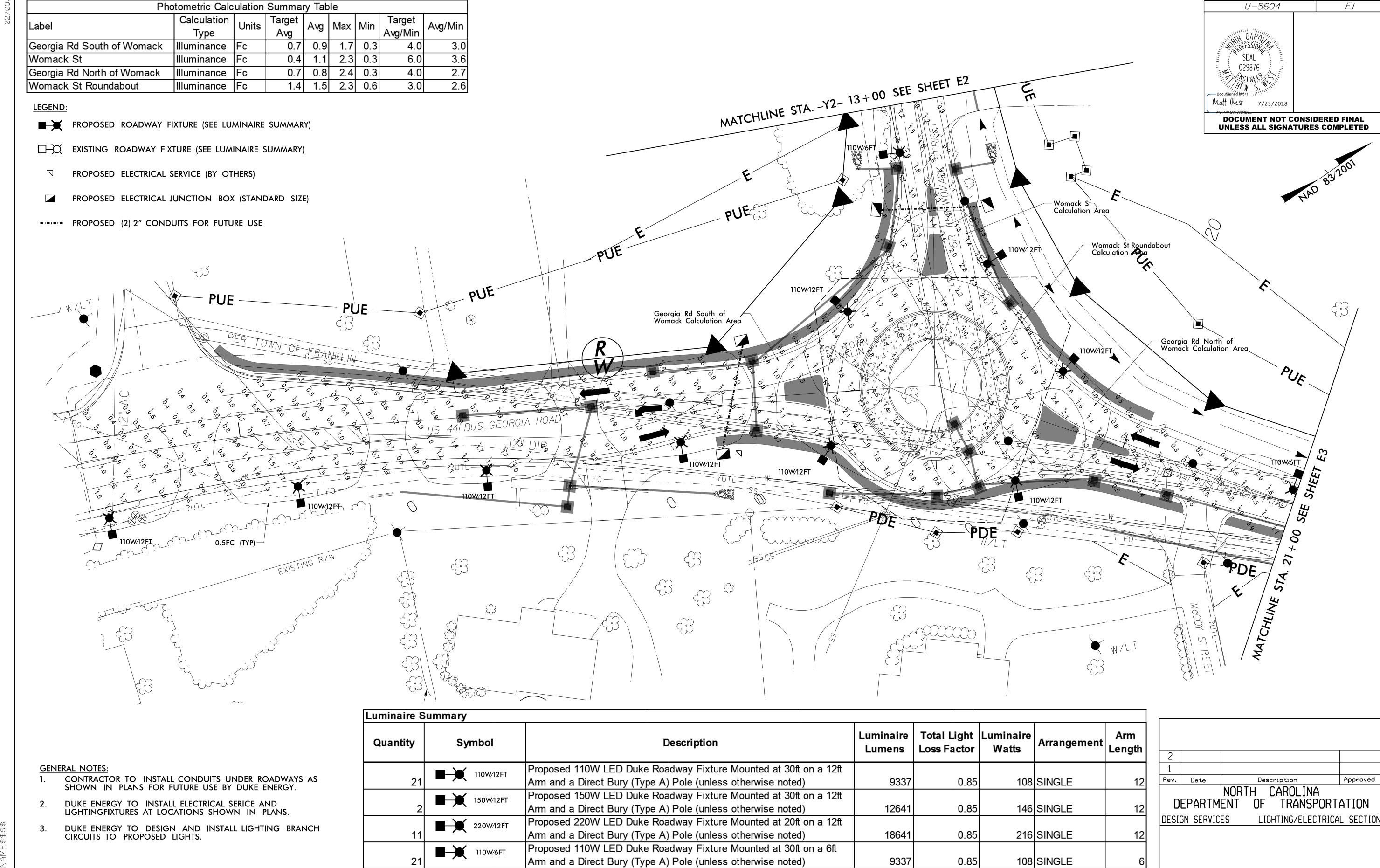
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Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft

12641

10721

0.85

0.69

146 SINGLE

193 SINGLE

Arm and a Direct Bury (Type A) Pole (unless otherwise noted)

Existing 150W HPS Flat Glass Duke Roadway Fixture

150W/20FT

PROJECT REFERENCE NO.

Approved By:

Dwg No.:

SHEET NO.

S\$\$\$\$\$\$\$YSTIME\$\$\$\$\$ S\$\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$\$\$\$\$\$\$\$\$\$\$\$ S\$\$\$USERNAME\$\$\$\$ PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

PROPOSED ELECTRICAL SERVICE (BY OTHERS)

PROPOSED ELECTRICAL JUNCTION BOX (STANDARD SIZE)

PROPOSED (2) 2" CONDUITS FOR FUTURE USE

PROJECT REFERENCE NO. SHEET NO. U-5604 E2 Matt West 7/25/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



Pho	tometric Calc	ulation	Summai	rv Tah	le			
Label	Calculation Type	Units	Target Avg	Avg	Max	Min	Target Avg/Min	Avg/Min
Georgia Rd South of Womack	Illuminance	Fc	0.7	0.9	1.7	0.3	4.0	3.0
Womack St	Illuminance	Fc	0.4	1.1	2.3	0.3	6.0	3.6
Georgia Rd North of Womack	Illuminance	Fc	0.7	0.8	2.4	0.3	4.0	2.7
Womack St Roundabout	Illuminance	Fc	1.4	1.5	2.3	0.6	3.0	2.6
	_							



CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.

DUKE ENERGY TO INSTALL ELECTRICAL SERICE AND LIGHTINGFIXTURES AT LOCATIONS SHOWN IN PLANS.

DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

uantity	Symbol	Description	Luminaire Lumens	Total Light Loss Factor	Luminaire Watts	Arrangamant	Arm Length
	_ _/	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
21	110W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12
	_ ~	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
2 150W/12	150W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	12
	- ~	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft					
11	220W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	12
	— > 11014// FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft					
21	110W/6FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	(
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft					
3	150W/20F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	20

Womack St
 Calculation Area ____ 0.5FC (TYP)

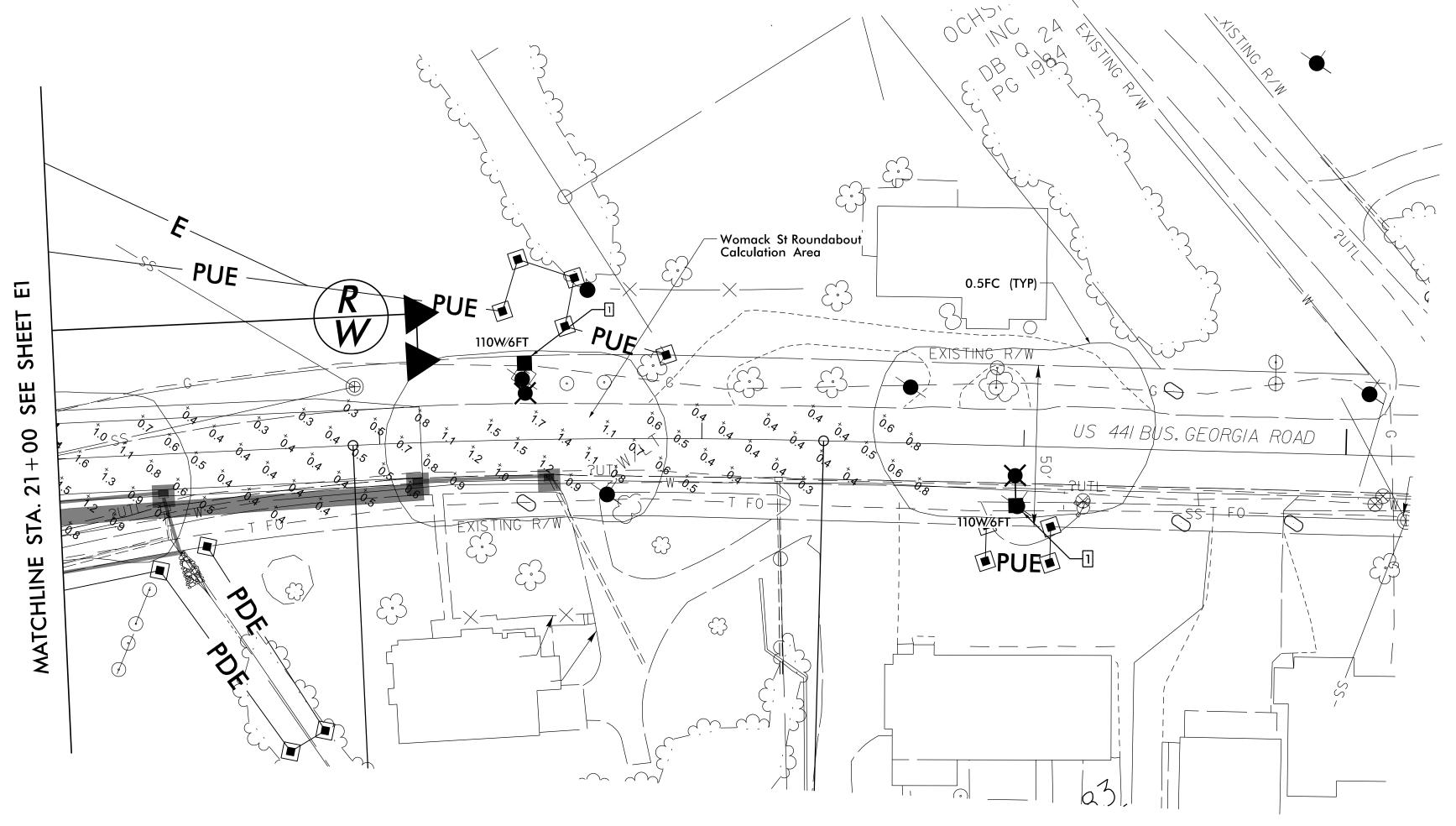
EXISTING R/W

♦₽ŲE**♦**

B

Date		Descri	ption		Approved
EPARTM	NORTH FNT (RT4	NUIT
GN SERVIC					SECTION

Approved By:



PROJECT REFERENCE NO).	SHEET NO.
U-5604		E3
SEAL O29876 Matt West 7/25/2018 AC71A1D0796B425		
DOCUMENT NOT C UNLESS ALL SIGNA		



SHEET NOTES:

LUMINAIRE TO BE INSTALLED ON REPLACEMENT UTILITY POLE. SEE SHEET UO–2 FOR MORE INFORMATION.

LEGEND:

PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

PROPOSED ELECTRICAL SERVICE (BY OTHERS)

PROPOSED ELECTRICAL JUNCTION BOXES

----- PROPOSED (2) 2" CONDUITS FOR FUTURE USE

Pho	otometric Calc	ulation	Summa	ry Tab	le			
Label	Calculation Type	Units	Target Avg	Avg	Max	Min	Target Avg/Min	Avg/Min
Georgia Rd South of Womack	Illuminance	Fc	0.7	0.9	1.7	0.3	4.0	3.0
Womack St	Illuminance	Fc	0.4	1.1	2.3	0.3	6.0	3.6
Georgia Rd North of Womack	Illuminance	Fc	0.7	0.8	2.4	0.3	4.0	2.7
Womack St Roundabout	Illuminance	Fc	1.4	1.5	2.3	0.6	3.0	2.6

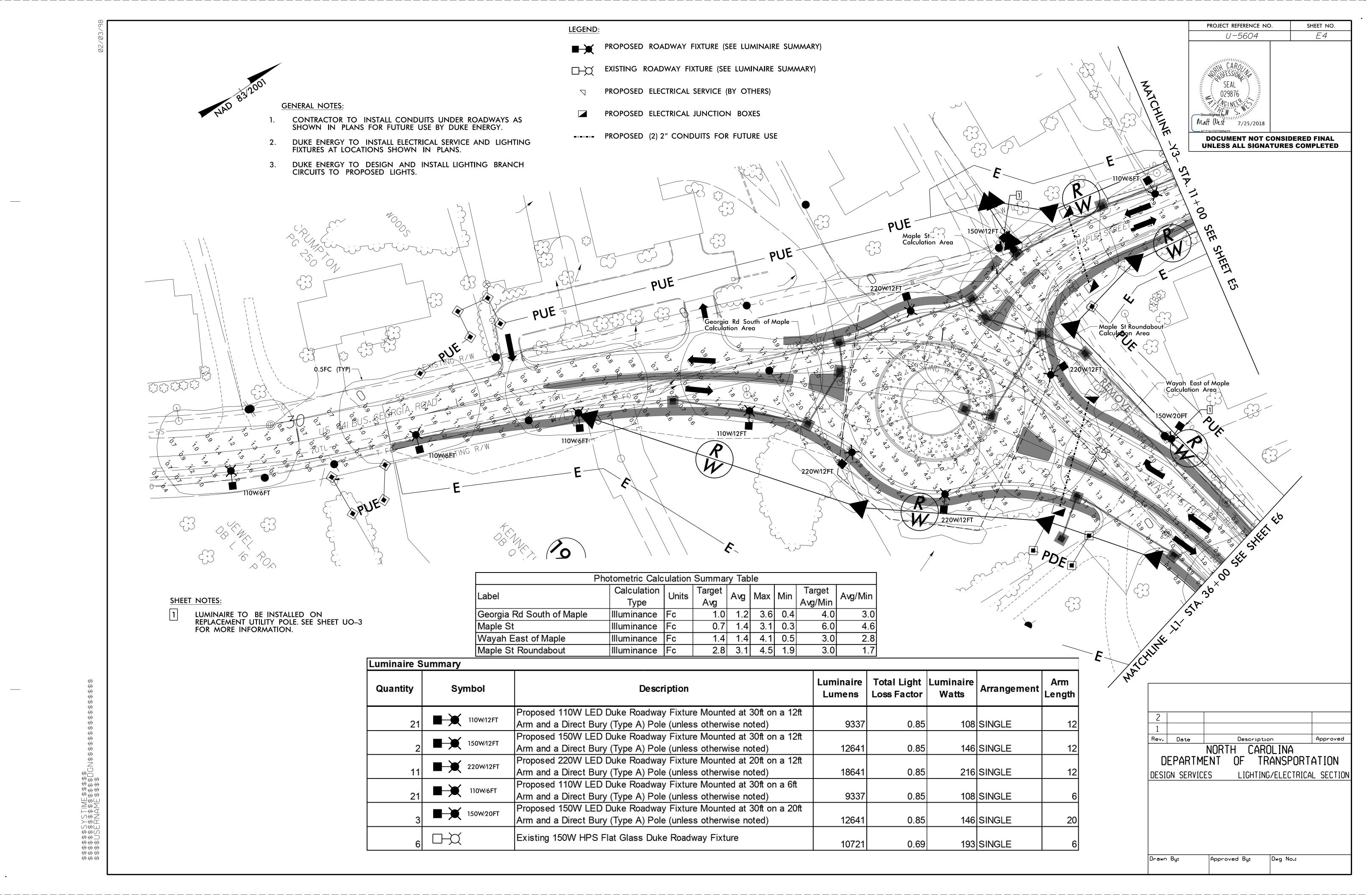
GENERAL NOTES:

- CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.
- DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING FIXTURES AT LOCATIONS SHOWN IN PLANS.
- DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

Quantity	Symbol	Description	Luminaire Lumens	Total Light Loss Factor	Luminaire Watts	Arrangement	Arm Length
	1101//2057	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
21	110W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12
	150W/12FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
2	15000/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	1:
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft					
11	220W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	1.
	110W/6FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft					
21	TIOW/OFT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft					
3	13077/2011	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	2
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE	

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION DESIGN SERVICES LIGHTING/ELECTRICAL SECTION Drawn By: Approved By:

\$\$\$\$\$YSTIME\$\$\$\$\$ \$\$\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$ \$\$USERNAME\$\$\$\$



PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

¬ PROPOSED ELECTRICAL SERVICE (BY OTHERS)

PROPOSED ELECTRICAL JUNCTION BOXES

----- PROPOSED (2) 2" CONDUITS FOR FUTURE USE

NAD 83/2001

CAROUS CAROUS SEAL

O29876

Docusigned by 7/25/2018

AC71A1D0796R425

SHEET NO.

PROJECT REFERENCE NO.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

				3//	
					in time
OO SEE SHEET	EXISTING R/W	— Maple St Calculation Area	.5FC (TYP)		
00 + 1.1 1.1 1.1 1.3 1.0 1.1 1.3 1.0 1.1 1.3 1.0 1.1 1.3 1.0 1.0 1.1 1.3 1.0 1.0 1.1 1.3 1.0 1.0 1.1 1.3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0		0+ 0+ 0+ 0+ 0+ 0+	TREE STREE		1_1
MATCHLINE -Y3 STA	5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	EXISTING BY MAPLE STALL SON		
			F.3.	N87	

Photometric Calculation Summary Table

Units

Avg

Calculation

Type

Illuminance Fc

Illuminance Fc

Illuminance Fc

Illuminance Fc

Label

Maple St

Georgia Rd South of Maple

Wayah East of Maple

Maple St Roundabout

GENERAL NOTES:

- 1. CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.
- 2. DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING FIXTURES AT LOCATIONS SHOWN IN PLANS.
- 3. DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

Quantity	Symbol	Description	Luminaire Lumens	Total Light Loss Factor	Luminaire Watts	Arrangement	Arm Length
	110W/12FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
21	11000/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12
	150W/12FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
2	1507//12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	12
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft					
11	220W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	12
	110W/6FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft					
21	11000/011	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	6
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft					
3	13077/2011	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	20
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE	6

Target

Avg/Min

3.0

2.8

Avg | Max | Min

1.0 1.2 3.6 0.4

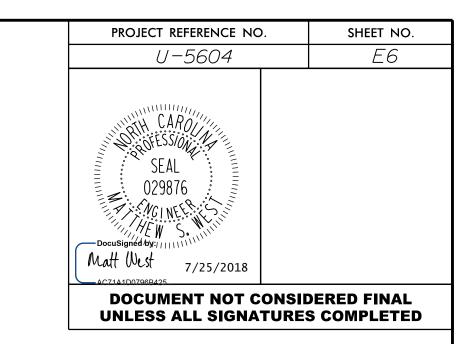
0.7 1.4 3.1 0.3

1.4 1.4 4.1 0.5

2.8 3.1 4.5 1.9

Description Approved NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ESIGN SERVICES LIGHTING/ELECTRICAL SECTION Approved By: Dwg No.:						
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ESIGN SERVICES LIGHTING/ELECTRICAL SECTION						
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ESIGN SERVICES LIGHTING/ELECTRICAL SECTION	2					
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ESIGN SERVICES LIGHTING/ELECTRICAL SECTION	1					
DEPARTMENT OF TRANSPORTATION ESIGN SERVICES LIGHTING/ELECTRICAL SECTION	÷ ∨.	Date	De	escriptio	n	Approved
awn By: Approved By: Dwg No.:			ENT OF	TR	ANSPORT	
	awn	Ву:	Approved	Ву:	Dwg No.:	





PUE PUE PUE Wayah East of Maple /
 West of Porter
 Calculation Area **E**4 SHEET 150W/12FT 0.5FC (TYP)

LEGEND:

PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

PROPOSED ELECTRICAL SERVICE (BY OTHERS)

PROPOSED ELECTRICAL JUNCTION BOXES

----- PROPOSED (2) 2" CONDUITS FOR FUTURE USE

Ph	otometric Calc	ulation	Summa	ry Tab	le			
Label	Calculation Type	Units	Target Avg	Avg	Max	Min	Target Avg/Min	Avg/Min
Georgia Rd South of Maple	Illuminance	Fc	1.0	1.2	3.6	0.4		3.0
Maple St	Illuminance	Fc	0.7	1.4	3.1	0.3	6.0	4.6
Wayah East of Maple	Illuminance	Fc	1.4	1.4	4.1	0.5	3.0	2.8
Maple St Roundabout	Illuminance	Fc	2.8	3.1	4.5	1.9	3.0	1.7
Wayah West of Porter	Illuminance	Fc	1.4	1.4	4.1	0.5	3.0	2.8
Porter St North of Wayah	Illuminance	Fc	1.4	1.5	3.8	0.4	4.0	3.7
Wayah St East of Porter	Illuminance	Fc	1.1	1.2	2.7	0.3	4.0	3.9
Porter St South of Wayah	Illuminance	Fc	0.8	1.0	3.1	0.3	6.0	3.2
Porter St Roundabout	Illuminance	Fc	2.8	2.8	4.3	1.6	3.0	1.8

SHEET NOTES:

- LUMINAIRE TO BE INSTALLED ON REPLACEMENT UTILITY POLE. SEE SHEET UO-3 FOR MORE INFORMATION.
- LUMINAIRE TO BE INSTALLED ON NEW UTILITY POLE. SEE SHEET UO-3 FOR MORE INFORMATION.

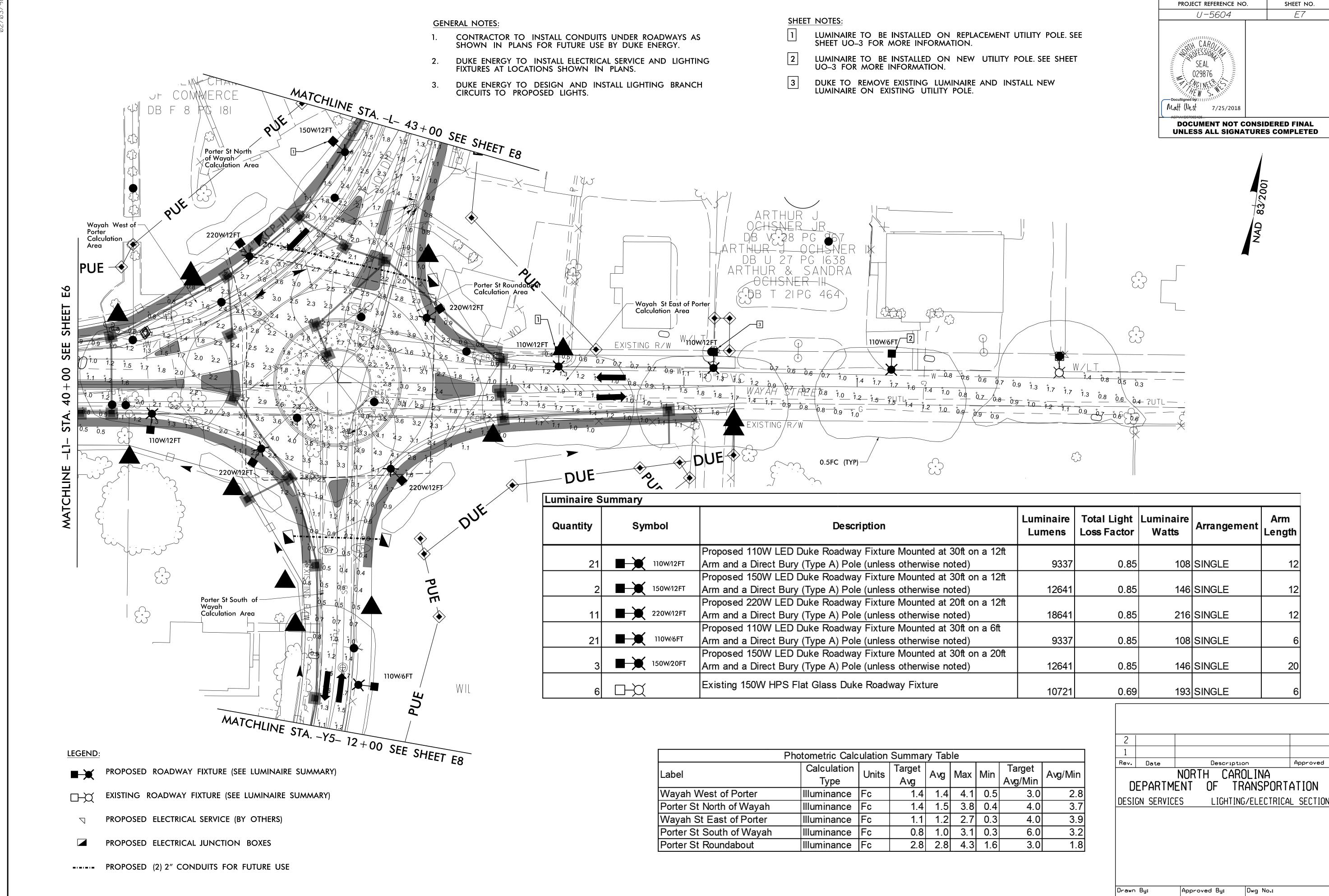
GENERAL NOTES:

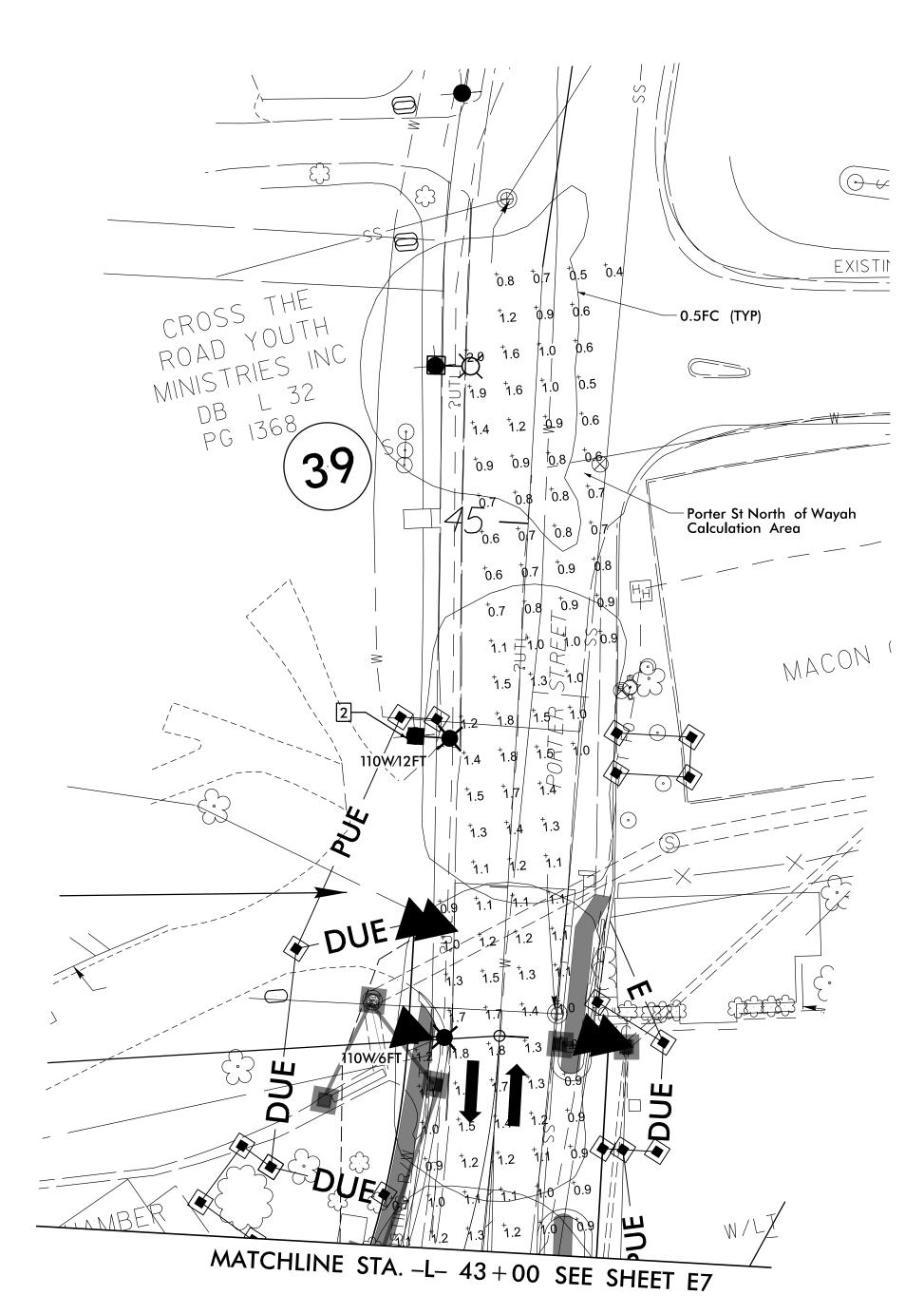
- CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.
- DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING FIXTURES AT LOCATIONS SHOWN IN PLANS.
- DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

Quantity	Symbol	Description	Luminaire Lumens	Total Light Loss Factor	Luminaire Watts	Arrangement	Arm Length
	— >	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
21	110W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12
	15004057	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
2	150W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	12
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft					
11	220W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	12
	110W/6FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft					
21	IIUW/oFI	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	6
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft		*			
3	13000/20F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	20
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE	E

+					
+	Date)escriptio	n	Approved
•		NORTH			
DE	PARTME	ENT O	F TR	ANSPORT	ATION
IGN	N SERVICE	ΣS Ι	_IGHTING	/ELECTRICA	L SECTION
		T		la	
n E	sy:	Approved	Ву :	Dwg No.:	

\$\$\$\$YSTIME\$\$\$\$\$ \$\$\$\$\$\$\$\$\$\$\$\$\$\$ \$USERNAME\$\$\$\$ $\Theta \Theta \Theta$ $\Theta \Theta \Theta$ () () ()





MATCHLINE STA. -Y5- 12+00 SEE SHEET E7 U-5604 E8 Matt West 7/25/2018 **DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED** Porter St South of Wayah Calculation Area INGHAM GEORGE ROCKINGHAM

OB PATTILLO IV

DB H 34 PG 328

DB H 34 PG 328 0.5FC (TYP) —

GENERAL NOTES:

- 1. CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.
- 2. DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING FIXTURES AT LOCATIONS SHOWN IN PLANS.
- 3. DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

LEGEND:

- PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)
- EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)
- ¬ PROPOSED ELECTRICAL SERVICE (BY OTHERS)
- PROPOSED ELECTRICAL JUNCTION BOXES
 - PROPOSED (2) 2" CONDUITS FOR FUTURE USE

SHEET NOTES:

- LUMINAIRE TO BE INSTALLED ON REPLACEMENT UTILITY POLE. SEE SHEET UO-3 FOR MORE INFORMATION.
- 2 LUMINAIRE TO BE INSTALLED ON EXISTING UTILITY POLE

Photometric Calculation Summary Table									
Label	Calculation Type	Units	Target Avg	Avg	Max	Min	Target Avg/Min	Avg/Min	
Wayah West of Porter	Illuminance	Fc	1.4	1.4	4.1	0.5	3.0	2.8	
Porter St North of Wayah	Illuminance	Fc	1.4	1.5	3.8	0.4	4.0	3.7	
Wayah St East of Porter	Illuminance	Fc	1.1	1.2	2.7	0.3	4.0	3.9	
Porter St South of Wayah	Illuminance	Fc	0.8	1.0	3.1	0.3	6.0	3.2	
Porter St Roundabout	Illuminance	Fc	2.8	2.8	4.3	1.6	3.0	1.8	

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Luminaire S	Summary							
Quantity	Symbol	Description Luminaire Lumens		Total Light Luminaire Loss Factor Watts		Arrangement	Arm Length	2
	_ ~	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft						1
21	110W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12	Rev
	_ ~	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft						1
2	2 150W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	12	1
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft						DES
11	220W/I2FI	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	12	
		Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft						ı
21	110W/6FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	6	1
	150,40057	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft						ı
3	150W/20FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)		0.85	146	SINGLE	20	ı
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE	6	Drav

NORTH CAROLINA

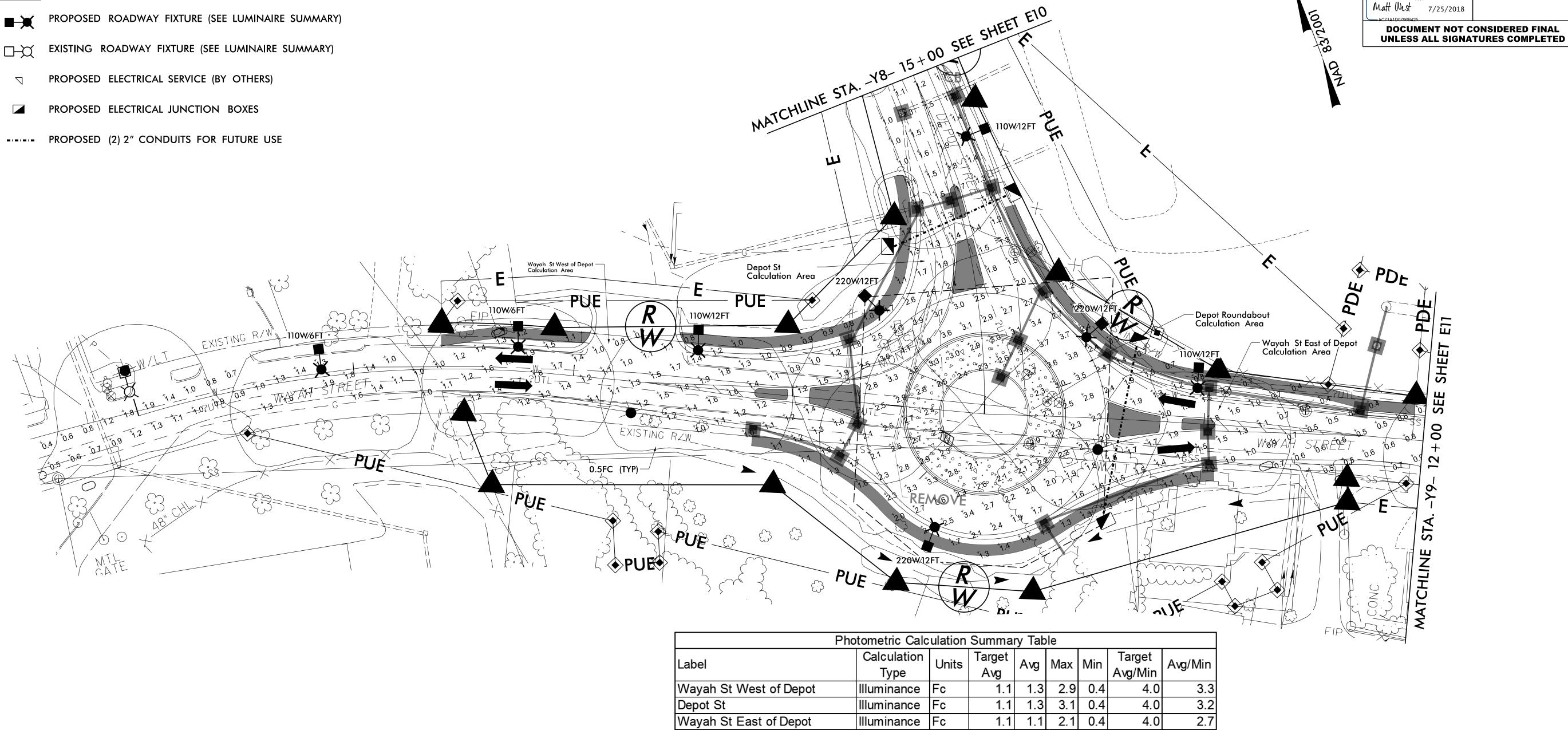
DEPARTMENT OF TRANSPORTATION

DESIGN SERVICES LIGHTING/ELECTRICAL SECTION

PROJECT REFERENCE NO.

SHEET NO.

wn By: Approved By: Dwg No.:



Photometric Calculation Summary Table								
Label	Calculation Type	Units	Target Avg	Avg	Max	Min	Target Avg/Min	Avg/Min
Wayah St West of Depot	Illuminance	Fc	1.1	1.3	2.9	0.4	4.0	3.3
Depot St	Illuminance	Fc	1.1	1.3	3.1	0.4	4.0	3.2
Wayah St East of Depot	Illuminance	Fc	1.1	1.1	2.1	0.4	4.0	2.7
Depot Roundabout	Illuminance	Fc	2.2	2.4	3.9	1.0	3.0	2.4

GENERAL NOTES:

- CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.
- DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING FIXTURES AT LOCATIONS SHOWN IN PLANS.
- DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

Quantity	Symbol	Description		Total Light Loss Factor		Arrangement	Arm Length
	110W/12FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft		,			
21	11000/1211	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12
	150W/12FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
2	150W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	12
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft					
11	220W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	12
	11004/// FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft		•			
21	110W/6FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	6
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft					
3	15077/20F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	20
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION LIGHTING/ELECTRICAL SECTION DESIGN SERVICES Approved By:

PROJECT REFERENCE NO.

U-5604

SHEET NO.

E9

PROJECT REFERENCE NO. SHEET NO. U-5604 E10 Matt West 7/25/2018 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2007

Depot St Calculation Area 0.5FC (TYP) -EXISTING R/W MATCHLINE

LEGEND:

PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

PROPOSED ELECTRICAL SERVICE (BY OTHERS)

PROPOSED ELECTRICAL JUNCTION BOXES

----- PROPOSED (2) 2" CONDUITS FOR FUTURE USE

Photometric Calculation Summary Table Calculation L Avg Max Min Label Avg/Min ' Avg/Min Type 1.1 1.3 2.9 0.4 Wayah St West of Depot Illuminance Fc 1.1 1.3 3.1 0.4 3.2 Depot St Illuminance |Fc 1.1 1.1 2.1 0.4 2.7 Wayah St East of Depot Illuminance Fc 2.2 2.4 3.9 1.0 2.4 Depot Roundabout Illuminance Fc

_uminaire Summary										
Quantity	Symbol	Description	Luminaire Lumens	Total Light Loss Factor		Arrangement	Arm Length			
	110044057	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft								
21	110W/12FT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	1			
	150W/12FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft								
2	1300/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	1			
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft								
11	220W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	1			
	110W/6FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft								
21	TIOWOFT	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE				
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft								
3	13377/2011	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	2			
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE				

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GENERAL NOTES:

SHEET NOTES:

CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS

DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING

LUMINAIRE TO BE INSTALLED ON REPLACEMENT UTILITY POLE. SEE SHEET UO-4 FOR MORE INFORMATION.

SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.

3. DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH

FIXTURES AT LOCATIONS SHOWN IN PLANS.

CIRCUITS TO PROPOSED LIGHTS.

nt	Arm Length								
			2						
	12		1						
		<u> </u>	Rev.	Date		Descr			Approved
	12		n	EPARTM(NORT FNT				ΤΔΤΙΩΝ
	12	<u> </u>	JESI	SN SERVICE	<u>:S</u>	LIGH	IING	/ELECTRIC	CAL SECTION
	6								
	20								
	6								
		- IL)rawn	Bu:	Approv	ea Bu:		Dwg No.:	

LIGHTING/ELECTRICAL SECTION

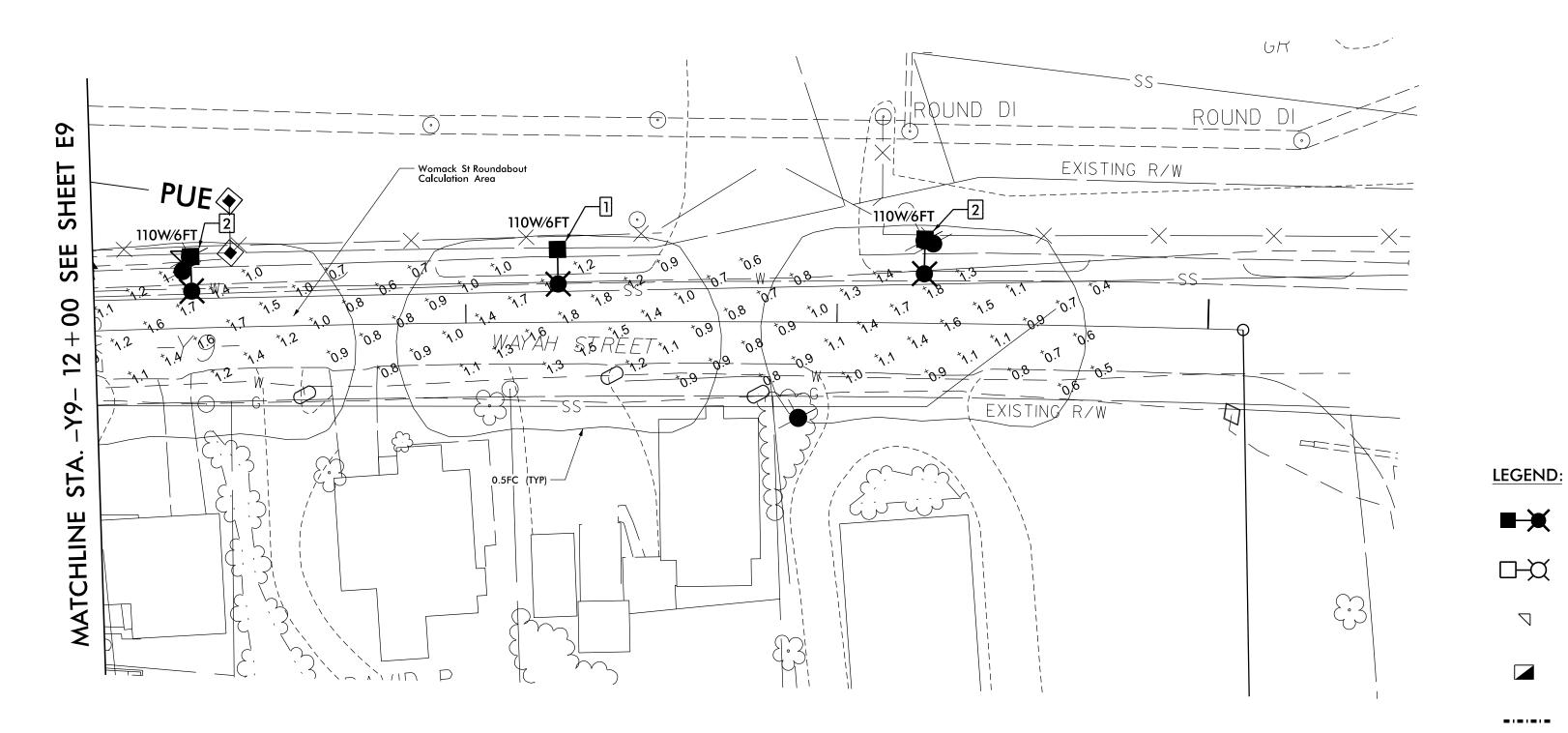
Dwg No.:

Approved By:

PROJECT REFERENCE NO. SHEET NO. U-5604 EII Matt West 7/25/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





PROPOSED ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

EXISTING ROADWAY FIXTURE (SEE LUMINAIRE SUMMARY)

PROPOSED ELECTRICAL SERVICE (BY OTHERS)

PROPOSED ELECTRICAL JUNCTION BOXES

PROPOSED (2) 2" CONDUITS FOR FUTURE USE

SHEET NOTES:

- 1 LUMINAIRE TO BE INSTALLED ON NEW UTILITY POLE. SEE SHEET UO-4 FOR MORE
- LUMINAIRE TO BE INSTALLED ON EXISTING UTILITY POLE.

GENERAL NOTES:

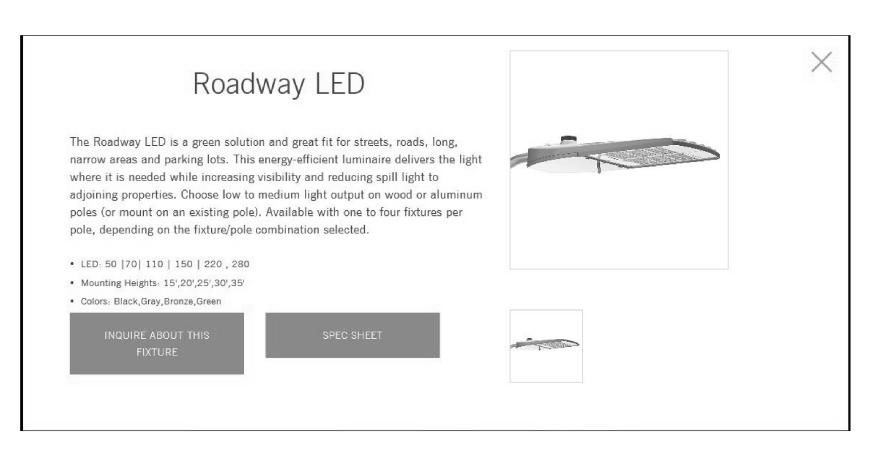
- CONTRACTOR TO INSTALL CONDUITS UNDER ROADWAYS AS SHOWN IN PLANS FOR FUTURE USE BY DUKE ENERGY.
- DUKE ENERGY TO INSTALL ELECTRICAL SERVICE AND LIGHTING FIXTURES AT LOCATIONS SHOWN IN PLANS.
- DUKE ENERGY TO DESIGN AND INSTALL LIGHTING BRANCH CIRCUITS TO PROPOSED LIGHTS.

Photometric Calculation Summary Table									
Label	Calculation	Units	Target	Avg	Max	Min	Target	Avg/Min	
Label	Туре	Office	Avg	, ,	IVIGA	171111	Avg/Min	/ (vg/ (viii)	
Wayah St West of Depot	Illuminance	Fc	1.1	1.3	2.9	0.4	4.0	3.3	
Depot St	Illuminance	Fc	1.1	1.3	3.1	0.4	4.0	3.2	
Wayah St East of Depot	Illuminance	Fc	1.1	1.1	2.1	0.4	4.0	2.7	
Depot Roundabout	Illuminance	Fc	2.2	2.4	3.9	1.0	3.0	2.4	

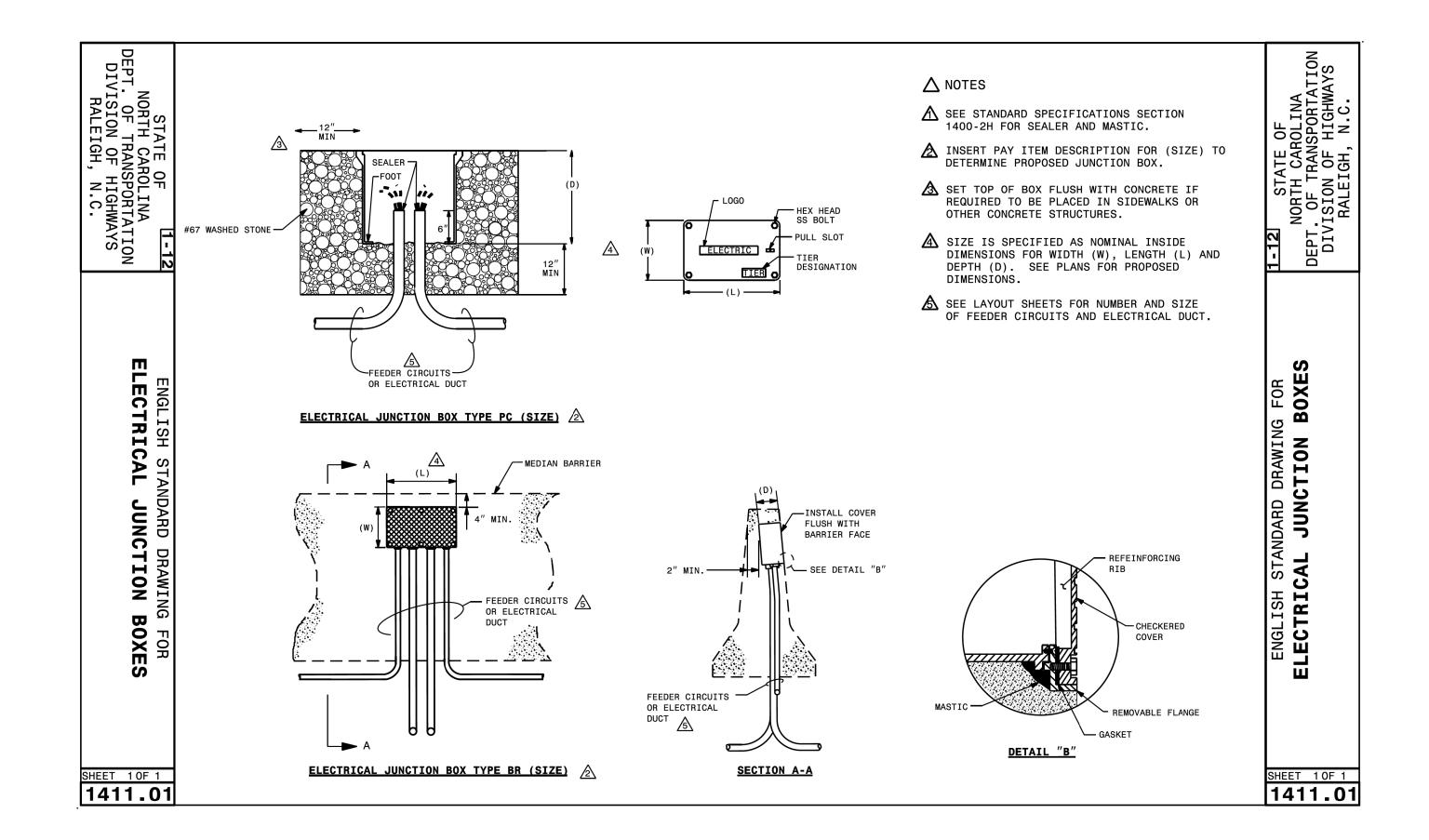
Quantity	Symbol	Description		Total Light Loss Factor	Luminaire Watts	Arrangement	Arm Length
	110W/12FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
21	110W/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	12
2	150W/12FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 12ft					
	1500/12F1	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	12
	220W/12FT	Proposed 220W LED Duke Roadway Fixture Mounted at 20ft on a 12ft		,			
11	220001211	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	18641	0.85	216	SINGLE	1:
	110W/6FT	Proposed 110W LED Duke Roadway Fixture Mounted at 30ft on a 6ft					
21	11000/011	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	9337	0.85	108	SINGLE	(
	150W/20FT	Proposed 150W LED Duke Roadway Fixture Mounted at 30ft on a 20ft		,			
3	1507//2011	Arm and a Direct Bury (Type A) Pole (unless otherwise noted)	12641	0.85	146	SINGLE	20
6		Existing 150W HPS Flat Glass Duke Roadway Fixture	10721	0.69	193	SINGLE	1

2								
1								
Rev.	Date	Descriptio	n	Approved				
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION								
DESI	GN SERVICE	ES LIGHTING	/ELECTRICA	L SECTION				
Drawn	By:	Approved By:	Dwg No.:					

 $\Theta \Theta \Theta$



110W LED DUKE ROADWAY LIGHT FIXUTRE DETAIL



NCDOT ELECTRICAL JUNCTION BOX DETAIL

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION LIGHTING/ELECTRICAL SECTION DESIGN SERVICES Approved By: